In re Application of: Yoram REITER
Serial No.: 10/073,300
Filed: 02/13/2002
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Examiner: Francois P. Vandervegt,
Group Art Unit: 1644
Attorney Docket: 02/23339

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1, 2, 12, 13 and 18 are in this Application. Claim 13 has been previously allowed. Claims 1, 2, 12 and 18 have been rejected under 35 U.S.C. § 103. Claim 1 has now been amended. Claim 18 has been cancelled herewith.

In a telephone interview graciously granted by the Examiner on November 6th, 2007, the outstansding rejection under 103 was discussed. Applicant's representative presented evidence in the cited publications showing that a *prima facie* case of obviousness has not been properly set forth. In reply, the Examiner stated that the subject matter of claim 18 is allowable upon putting the arguments presented by Applicant's representative in writing.

35 U.S.C. §103

The Examiner has rejected claims 1, 2, 12 and 18 under 35 U.S.C. 103(a), as being unpatentable over Mottez et al. (J. Exp. Med. 1995, 181:493-502) in view of Lone et al. (J. Immunotherapy, 1998, 21:282-294).

Specifically, the Examiner states that Mottez et al. teach single chain constructs comprising a murine MHC class I heavy chain joined to β2-microglobulin with a covalently bound antigenic peptide, and that the β2-microglobulin is fused upstream of the heavy chain and the antigenic peptide is covalently attached (Pages 495-496). In addition, the Examiner states that in continuation of the same work, Lone et al. teach that the same techniques were applied to human MHC heavy chain HLA-A2.1, which was joined via a 15-amino acid linker to human β2-microglobulin, and that Lone et al. teach that the single chain MHC class I construct specifically bound HLA-A2 restricted peptides and induced peptide-specific cytotoxic T cells to proliferate and produce IL-2. The Examiner further states that it would have been *prima facie* obvious to a person having ordinary skill in the art to substitute human MHC class I as taught by Lone for the murine MHC class I bound to a specific peptide

as taught by Mottez. The Examiner's rejections are respectfully traversed. Claim 1 has been amended herewith. Claim 18 has been cancelled herewith.

Applicant points out that in contrast to Examiner's assertion, the single chain polypeptides taught by Motezz et al. and Lone et al. comprise a β2-microglobulin downstream (and not upstream, as claimed) of the MHC heavy chain [see Mottez et al. Page 495, right column (in particular the description of Figure 1) through Page 496 left column, first paragraph; and Lone et al. Pages 284 (right column, third paragraph) – 285 (left column, first paragraph), and Page 286 (right column, second paragraph)].

Thus, it is Applicant's position that a proper *prima facie* case of obviousness has not been properly set forth, since neither Mottez et al. nor Lone et al. or a combination of same teach a plurality of complexes each being composed of an antigenic peptide being capable of binding a human MHC class I, and a chimeric polypeptide which comprises a functional human β-2 microglobulin translationally fused **upstream** of a functional human MHC class I heavy chain, wherein all of said plurality of complexes are identical and recognizable by one CTL clone, as now claimed .

In view of the above arguments, remarks and claim amendments Applicant believes to have overcome the 35 U.S.C. § 103(a), rejections.

In view of the above amendments and remarks it is respectfully submitted that claims 1, 2 and 12 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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Date: November 15, 2007